

## **ABSTRACT OF THE DISCLOSURE**

Impedance measurements between the electrodes in an electric field is utilized to detect the presence of pathogens trapped in the electric field. Since particles trapped in a field using the dielectrophoretic force changes the impedance between the electrodes by changing the dielectric material between the electrodes, the degree of particle trapping can be determined by measuring the impedance. This measurement is used to determine if sufficient pathogen have been collected to analyze further or potentially to identify the pathogen.

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